

IN THE CLAIMS:

Please cancel Claim 10 without prejudice to or disclaimer of its subject matter.

Please amend Claims 1 and 8 as follows. Note that all claims in the application are being reproduced below in accordance with current U.S. Patent and Trademark Office requirements.

1. (Currently Amended) A linear motor comprising:

a plurality of coils;

a plurality of core member members, wherein each of the core members is used for winding each of the coils; and;

~~a coil obtained by winding a foil-like conductor having an insulating layer around said core member in a multilayered structure; and~~

a coil fixing member which fixes each of the plurality of coils using each of the plurality of core members ~~portion fixing said coil;~~

~~wherein said coil is fixed to said coil fixing portion by using said core member.~~

2. (Original) The motor according to claim 1, wherein said core member is formed from an insulating material.

3. (Original) The motor according to claim 1, wherein said core member is formed from a material having a low thermal conductivity.

4. (Original) The motor according to claim 1, wherein said core member is formed from the same material as a material of said coil fixing portion or a material having substantially the same linear expansion coefficient.

5. (Original) The motor according to claim 1, wherein said core member is formed from a ceramic.

6. (Original) The motor according to claim 1, wherein said core member is formed from a resin material.

7. (Original) The motor according to claim 6, wherein said core member is annular and is fixed by being fitted on said coil fixing portion.

8. (Currently Amended) The motor according to claim 1, wherein an outer circumferential surface of said coil ~~wounded with the foil-like conductor in the multilayered structure~~ is covered with an electrically insulating material.

9. (Original) The motor according to claim 1, wherein said coil fixing portion is shaped such that an area in a direction in which a large force is received under influence of a magnetic field is larger than an area in a direction in which a small force is received.

Claim 10 (Cancelled).

11. (Withdrawn) A method of manufacturing a linear motor, comprising:  
a step of causing a core member of the linear motor to serve as a winding jig  
and winding a foil-like conductor around the core member; and  
a step of manufacturing the linear motor by using the core member as part of a coil after the winding step,  
wherein the linear motor includes  
a core member,  
a coil obtained by winding the foil-like conductor having an insulating layer around the core member in a multilayered structure, and  
a coil fixing portion fixing the coil, and  
the coil is fixed to the coil fixing portion by using the core member.

12. (Withdrawn) An exposure apparatus comprising:  
a reticle stage scanning a reticle;

a wafer stage scanning a wafer;

a projection optical system arranged so that the reticle scanned is projected on the wafer scanned via said optical unit; and

a linear motor being used in the apparatus having, (i) a core member, (ii) a coil obtained by winding a foil-like conductor having an insulating layer around said core member in a multilayered structure; and (iii) a coil fixing portion fixing said coil, wherein said coil is fixed to said coil fixing portion by using said core member.

13. (Withdrawn) The apparatus according to claim 12, wherein

the linear motor is used as at least either one of a force actuator in a driving unit driving the reticle stage and the wafer stage or in a reaction force receiving unit for cutting off transmission of a reaction force in driving the stage, and means for preventing vibration transmission in a support unit for the optical unit.

14. (Withdrawn) The apparatus according to claim 12, wherein a beam

used includes a light ray and an electron beam emitted via a projection optical system.

15. (Withdrawn) A semiconductor device manufacturing method

comprising the steps of:

installing a plurality of semiconductor manufacturing apparatuses including an exposure apparatus in a semiconductor manufacturing factory; and

manufacturing a semiconductor device by using the plurality of semiconductor apparatuses,

wherein the exposure apparatus includes

a reticle stage scanning a reticle;

a wafer stage scanning a wafer;

a projection optical system arranged so that the reticle scanned is projected on the wafer scanned via said optical unit; and

a linear motor being used in the apparatus having, (i) a core member, (ii) a coil obtained by winding a foil-like conductor having an insulating layer around said core member in a multilayered structure; and (iii) a coil fixing portion fixing said coil, wherein said coil is fixed to said coil fixing portion by using said core member.

16. (Withdrawn) The method according to claim 15, further comprising the steps of:

connecting the plurality of semiconductor manufacturing apparatuses via a local area network;

connecting the local area network to an external network outside the semiconductor manufacturing factory;

acquiring information about the exposure apparatus from a database on the external network by using the local area network and the external network; and

controlling the exposure apparatus on the basis of the acquired information.

17. (Withdrawn) The method according to claim 16, wherein a database provided by a vendor or user of the exposure apparatus is accessed via the external network, thereby obtaining maintenance information of the exposure apparatus by data communication, or data communication is performed between the semiconductor manufacturing factory and another semiconductor manufacturing factory via the external network, thereby performing production management.

18. (Withdrawn) A semiconductor manufacturing factory comprising:  
a plurality of semiconductor manufacturing apparatuses including an exposure apparatus;  
a local area network connecting said plurality of semiconductor manufacturing apparatuses; and  
a gateway for allowing access to an external network outside the factory from said local area network and allowing communicating information about at least one of said plurality of semiconductor manufacturing apparatuses,  
wherein the exposure apparatus includes  
a reticle stage scanning a reticle;  
a wafer stage scanning a wafer;  
a projection optical system arranged so that the reticle scanned is projected on the wafer scanned via said optical unit; and

a linear motor being used in the apparatus having, (i) a core member, (ii) a coil obtained by winding a foil-like conductor having an insulating layer around said core member in a multilayered structure; and (iii) a coil fixing portion fixing said coil, wherein said coil is fixed to said coil fixing portion by using said core member.

19. (Withdrawn) A maintenance method for an exposure apparatus, comprising the steps of:

preparing a database for accumulating information about maintenance of the exposure apparatus on an external network outside a factory in which an exposure apparatus is installed;

connecting the exposure apparatus to a local area network in the factory; and

maintaining the exposure apparatus on the basis of information accumulated in the database by using the external network and the local area network,

wherein the exposure apparatus includes

a reticle stage scanning a reticle;

a wafer stage scanning a wafer;

a projection optical system arranged so that the reticle scanned is projected on the wafer scanned via said optical unit; and

a linear motor being used in the apparatus having, (i) a core member, (ii) a coil obtained by winding a foil-like conductor having an insulating layer around said core member in

a multilayered structure; and (iii) a coil fixing portion fixing said coil, wherein said coil is fixed to said coil fixing portion by using said core member.

20. (Withdrawn) The apparatus according to claim 12, wherein the exposure apparatus further comprises a display for displaying maintenance information, a network interface connected to a computer network to communicate the maintenance information, and a computer for executing the communication by network software, and

said display, said network interface, and said computer enable communicating maintenance information of the exposure apparatus via a computer network.

21. (Withdrawn) The apparatus according to claim 20, wherein the network software provides on said display said user interface for accessing a maintenance database provided by a vendor or user of the exposure apparatus and connected to the external network outside a factory in which the exposure apparatus is installed, and information is obtained from the database via the external network.

Please add Claims 22-24 as follows:

--22. (New) The motor according to claim 1, wherein said each of the plurality of coils is formed as coils wound with the laminated foil-like conductors.



23. (New) The motor according to claim 1, wherein said fixing member has a plurality of positioning portions, and each of the plurality of positioning portions engages each of the plurality of core members, thereby the core members are positioned.

24. (New) The motor according to claim 1, wherein each of the plurality of core members forms a positioning hole to engage each of the plurality of positioning portions.--